

# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE: PRESENTS; SHALL, COME;

Monsanto Jechnology LLG

THE THERE HAS BEEN PRESENTED TO THE

#### Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT. THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY LEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC SELENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE CHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFFERING IT FOR SALE, OR REPRODUCING IT, OR LING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE URPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CORN, FIELD

'I062696'

In Testimonn Thereof, I have hereunto set my hand and caused the seal of the Flant Bariety Frotection Office to be affixed at the City of Washington, D.C. this twenty-fifth day of November, in the year two thousand and eight.

Attast.

Olenza-

Commissioner Plant Variety Protection Office Agricultural Marketing Service Colmonel T. Suhad Agriculturo

ST-470 (02-10-2003) designed by the Plant Variety Protection Office using

REPRODUCE LOCALLY. Include form number and date on all reproductions Form Approved - OMB No. 0581-0055 U.S. DEPARTMENT OF AGRICULTURE The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE the Paperwork Reduction Act (PRA) of 1995. Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426). APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions and information collection burden statement on reverse) 1. NAME OF OWNER TEMPORARY DESIGNATION OR EXPERIMENTAL NAME 3. VARIETY NAME Monsanto Technology L.L.C. LLC 1062696 None 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 5. TELEPHONE (include area code) FOR OFFICIAL USE ONLY (815) 758-9281 800 N. Lindbergh Blvd. Creve Coeur, MO 63167 6. FAX (include area code) U.S.A. (815) 758-3117 IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) 9. DATE OF INCORPORATION IF INCORPORATED, GIVE March 1,2006 STATE OF INCORPORATION August 27, 1999 Corporation Delaware 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) FILING AND EXAMINATION FEES: : 4382,00 Timothy R. Kain Michael J. Roth 8350 Minnegan Road 800 N. Lindbergh Blvd. : 768.00 Waterman, IL 60556 Creve Coeur, MO 63167 U.S.A. DATE 10/29/08 U.S.A. 11. TELEPHONE (Include area code) 12. FAX (Include area code) 13. E-MAIL 14. CROP KIND (Common Name) (815) 758-9281 trkain@monsanto.com (815) 758-3117 Corn, Field 15. GENUS AND SPECIES NAME OF CROP 16. FAMILY NAME (Botanical) 17. IS THE VARIETY A FIRST GENERATION Zea mavs Graminae X NO ☐ YES 18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED 19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act) (Follow instructions on reverse) See Section 83(a) of the Plant Variety Protection Act) X NO (If "no", go to item 22) a. X Exhibit A. Origin and Breeding History of the Variety ☐ YES (If "yes", answer items 20 and 21 below) X Exhibit B. Statement of Distinctness  $\Box$ 20. DOES THE OWNER SPECIFY THAT SEED OF THIS П мо VARIETY BE LIMITED AS TO NUMBER OF CLASSES? X Exhibit C. Objective Description of Variety Exhibit D. Additional Description of the Variety (Optional) IF YES, WHICH CLASSES? FOUNDATION REGISTERED ☐ CERTIFIED X Exhibit E. Statement of the Basis of the Owner's Ownership 21. DOES THE OWNER SPECIFY THAT SEED OF THIS ☐ YES □ NO VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED g. X Filing and Examination Fee (\$3,652), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office) (If additional explanation is necessary, please use the space indicated on the reverse.) 22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. 23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? □ NO IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.) IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.) The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties. SIGNATURE OF OWNER SIGNATURE OF OWNER NAME (Please print or type NAME (Please print or type) Timothy R. Kain CAPACITY OR TITLE CAPACITY OR TITLE DATE Patent Scientist

(See reverse for instructions and information collection burden state

#### INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$3,652 (\$432) filing fee and \$3,220 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$432 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent,

> **Plant Variety Protection Office** Telephone: (301) 504-5518 FAX: (301) 504-5291

Homepage: http://www.ams.usda.gov/science/pvpo/pvp.htm

#### ITEM

- 18a. Give:
- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
  - (2) the details of subsequent stages of selection and multiplication;
  - (3) evidence of uniformity and stability; and
  - (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
  - (1) identify these varieties and state all differences objectively;
  - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 23. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Parent of a hybrid sold in the U.S. - April 2005

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

U.S. Patent Application No. 11/098,580 - filed April 4, 2005 (1062696)

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97,175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority. For example, for agricultural and vegetable crops, contact: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089. http://www.ams.usda.gov/lsg/seed.htm

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 3.0 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.
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## EXHIBIT A (revised)

#### Origin and Breeding History 1062696

1062696 was selected for high yield and low harvest moisture with adequate standability and test weight.

| Winter 1996-97 | The cross between and 16HFI1* and 01INL1 (both proprietary DEKALB Genetics |
|----------------|--|
|                |  |

Corporation inbreds) was made in Kihei between Elite Section Entry 27 x Entry

20.

Summer 1997 The F1 was grown and self pollinated in row 97MR115:44

Summer 1998 The F2 was self pollinated in rows 98MR117:21-118:20. Two hundred and sixty

eight ears were saved.

Winter 1998/99 220 F3 ears were self pollinated in rows MX1SS- 221-440. Six ears from row

MX1SS-270 were saved and bulked in a modified single seed descent procedure.

Spring 1999 The Bulked F4 was self pollinated in Kihei Faster Row

99KH9K-12:26. The harvested ears were again bulked in a modified single seed

descent procedure.

Summer 1999 The Bulked F5 was self pollinated in Kihei Faster row

99KH8Q-33:20. This row is referenced as 99SN2 0033 00020 in the Monsanto

Maris database. Five ears were selected to resume ear to row selection.

Winter 1999/2000 The F6 was self pollinated in PR SS2 6109. Two ears were selected.

Summer 2000 The F7 was Self pollinated in row SEG1-412:18 . Three ears were selected and

coded 1062696.

Winter 2000/2001 The F8 was grown ear to row in rows K2LS 11:59-61.

Summer 2001 The F9 was increased in 20 rows ATLINC 223:12-224:12.

\* - 16HFI1 is derived from H99, MBWZ (PVP No. 9300081) and 3IIH6 (PVP No. 9300087)

#### Statement of Stability and Uniformity

Corn inbred I062696 was coded in 2000 with final selection made in 2001. This inbred has been reproduced by self pollination for three generations and judged to be stable. Inbred I062696 is uniform for all traits observed.

#### Statement of Variants

1062696 shows no variants other than what would normally be expected due to environment or that would occur for almost any character during the course of repeated sexual reproduction.

#### **EXHIBIT B**

#### Statement of Distinctness

Monsanto Technology <del>L.L.C.</del> believes that I062696 is most similar to corn inbred 01INL1, an inbred developed by DEKALB Genetics Corporation.

1062696 and 01INL1 differ most significantly in the following traits:

| Trait         | 1062696 | 01INL1     |
|---------------|---------|------------|
| Husk Opening* | Tight   | Very Loose |
|               | (7)     | (1)        |

<sup>\*</sup>based on a scale of 1-9; 1 = very loose, 9 = very tight

#### 2002

| Variety | Tassel Length (cm)             | Tassel Branch Angle<br>(degrees) |
|---------|--------------------------------|----------------------------------|
| 1062696 | 38.6<br>(Std Dev = 2.6, N= 10) | 12.2<br>(Std Dev = 4.6, N= 10)   |
| 01INL1  | 31.9<br>(Std Dev = 2.2, N= 10) | 43.5<br>(Std Dev = 5.3, N= 10)   |
| P_Val   | 0.000                          | 0.000                            |
| Signif, | **                             | **                               |

#### 2003

| Variety | Tassel Length (cm)            | Tassel Branch Angle (degrees)  |
|---------|-------------------------------|--------------------------------|
| 1062696 | 37.2<br>(Std Dev = 2.7, N=10) | 14.3<br>(Std Dev = 2.6, N= 10) |
| 01INL1  | 30.6<br>Std Dev = 2.6 , N=10) | 43.5<br>(Std Dev = 4.7, N= 10) |
| P_Val   | 0.000                         | 0.000                          |
| Signif. | **                            | **                             |

Significance levels are indicated as: + = 10%, \* = 5%, \*\* = 1%

Corn variety 1062696 has a tight husk, a longer tassel length and a narrower tassel branch angle while comparative corn variety 10INL1 has a very loose husk, a shorter tassel length and a wider tassel branch angle.

### EXHIBIT B (revised)

#### Description of Experimental Design

The corn varieties I062695, 01INL1 and MO17 were grown at the Waterman, IL observation nursery in years 2002-2003. The varieties were planted in 2 row plots with 15 plants per row in each of the three years. Trait data were collected on 10 random representative plants for most traits from each 2 row plot. Data on qualitative traits are usually collected on 10 plants from each 2 row plot. For Exhibit C all data were pooled and reported as means across the years for subject variety and the standard variety with standard deviation. The varieties are randomly planted in a 4.5 acre observation nursery which is located within a larger 18 acre field. Besides the observation nursery, this field consists of a research seed increase nursery and an IP seed inventory nursery. The location of each of these individual nurseries is rotated each year to a different location within the 18 acre field. Therefore subject inbreds are not planted adjacent to comparative or standard varieties and may be located in different areas of the larger field each year, therefore being influenced by spacial differences within the field. Growing conditions within the field are not uniform as there are some slight topographical variations such as lower areas which may accumulate and retain water or higher areas which are usually drier. The field is tiled and therefore a variety maybe planted close to a tile line while a comparative variety maybe planted further away and in a low spot within the field. Temporal varieties can exist as weather conditions from year to year can vary as well as planting dates can vary from year to year based on weather conditions. Weather conditions each year can vary the maturity rate of the varieties due to either favorable or unfavorable growing conditions.

Trait variability is not observed for each variety within its own test plot-plants are usually uniform and data are collected on the "most" representative plants- variability occurs due to spacial location of the test plot for that variety from year to year and to the temporal variation of weather conditions from year to year during the 2-3 years data are collected.

#### Waterman Research Station Weather Data 2002-2003

| Date        | Average<br>Precip. | Ave. Monthly<br>Temp – Max. | Ave. Monthly<br>Temp-Min | Ave. Monthly<br>Rel. Humid | Ave. Monthly<br>Rel. Humid – |
|-------------|--------------------|-----------------------------|--------------------------|----------------------------|------------------------------|
|             | (mm)               | (F°)                        | [(F°)                    | Max (%)                    | Min (%)                      |
| June 2002   | 5.3                | 81.3                        | 60.4                     | 90.7                       | 47.7                         |
| July 2002   | 1.5                | 87.0                        | 64.9                     | 93.2                       | 48.3                         |
| August 2002 | 5.7                | 83.1                        | 61.0                     | 96.0                       | 51.8                         |
| Sept. 2002  | 1.5                | 79.4                        | 52.6                     | 95.0                       | 42.7                         |
| June 2003   | 2.0                | 75.7                        | 55.7                     | ч                          |                              |
| July 2003   | 6.4                | 82.2                        | 62.2                     | _                          | _                            |
| August 2003 | 2.6                | 83.5                        | 63.5                     | _                          | _                            |
| Sept 2003   | 2.6                | 72.9                        | 52.9                     | -                          | -                            |

# 2MS 9/24/08

# United States Department of Agriculture, Agricultural Marketing Service Science and Technology, Plant Variety Protection Office National Agricultural Library Building, Room 400 Beltsville, MD 20705-2351

OBJECTIVE DESCRIPTION OF VARIETY CORN (Zea mays L.)

|  |   |   | O O THE LEGG HIS   | 3) O E./                            |                           |   |                        |
|--|---|---|--|-------------------------------------|---------------------------|---|------------------------|
| Name of Applican   | t(s)  |   |  | Variety Seed Source                 | e Va                      | riety Name or Temporary   | y Designation          |
| Monsanto Techno  | ology <del>L.L.C.</del> LLC   |   |  |                                     |                           | 1062696   |                        |
| Address (Street &  | No., or R.F.D. No., City, S   | State, Zip Code and Country   | )  |                                     | FC                        | OR OFFICIAL USE   | PVPO Number            |
| 8350 Minnegan R  | oad, Waterman, IL 60556   |   |  |                                     |                           | 200600  | 0122                   |
| Place the appropr<br>necessary. Comp   | iate number that describer<br>leteness should be striver  | s the varietal characters typi<br>i for to establish an adequat   | cal of this inbred variety<br>e variety description.   | in the spaces below. F              | Right justify who         | ole numbers by adding le  | ading zeroes if        |
| 01=Lig<br>02=Me<br>03=Da<br>04=Ve  | S (Use in conjunction with<br>ght Green<br>edium Green<br>ark Green<br>ary Dark Green<br>een-Yellow | Munseli color code to descr<br>06=Pale Yellow<br>07=Yellow<br>08=Yellow-Orange<br>09=Salmon<br>10=Pink-Orange | ibe all color choices; des<br>11=Pink<br>12=Light Red<br>13=Cherry Red<br>14=Red<br>15=Red & White   | 16=Pal<br>17=Pur<br>18=Col<br>19=Wh | e Purple<br>ple<br>orless | ion): 21=Buff 22=Tan 23=Brown 24=Bronze 25=Variegated 26=Other (D   | (Describe)<br>escribe) |
| STANDARD INBR<br>Yellow Dent<br>Family<br>B14<br>B37<br>B73<br>C103<br>Oh43<br>WF9 | Families:   | 68<br>682<br>6  | and maturity) of these to<br>Yellow Dent (Unrelater<br>Co109, ND246,<br>Oh7, T232<br>W117, W153R<br>W182BN<br>White Dent:<br>Cl66, H105, Ky2 | <b>i</b> ):                         | S<br>P                    | out trial data):<br>weet Corn:<br>C13, Iowa5125, P39<br>opcorn:<br>SG1533, 4722, HP3i<br>ipecorn:<br>Mo15W, Mo16W, Mc | 01, HP7211             |
| 1. TYPE: (describ  | e intermediate types in Co  | mments section)   |  |                                     | Standard Ir               | bred Name MO17  |                        |
| 2 1=Sweet  | : 2=Dent 3=Flint 4=Flour  | 5=Pop 6=Ornamental 7=I  | Pipecorn   |                                     | 2 Type                    |   |                        |
| 2. REGION WHE  | RE DEVELOPED IN THE   | U.S.A.:   |  |                                     | Standard S                | eed Source  |                        |
| 2 1= <b>N</b> orthy  | vest 2=North central 3  | =Northeast 4=Southeast  | 5=South central 6=So   | outhwest 7=Other                    | 2 Regio                   | n   |                        |
| 3. MATURITY (In<br>DAYS<br>8 9   | HEAT UNITS  | show Heat Unit formula in "onergence to 50% of plants in  | •  |                                     | DAYS<br>0 7 9             | HEAT UNITS<br>1 6 8 0.0   | , - 4W+                |
| 87   | 1434.5 From en  | nergence to 50% of plants in  | n pollen   |                                     | 075                       | 1 5 8 2.0   |                        |
| ·  | From 10   | 0% to 90% pollen shed   |  |                                     |                           |   |                        |
|  | From 50   | 0% silk to optimum edible qu  | uality   |                                     |                           |   |                        |
|  | From 50   | 0% silk to harvest at 25% m   | oisture  |                                     |                           |   |                        |
| 4. PLANT:  |   |   | Standard Deviation   | Sample Size                         | Mean                      | Standard Deviation  | Sample Size            |
| 194.7 c  | m Plant Height (to tassel t   | ip)   | 16.2   | 30 .                                | 1 9 2.7                   | 18.6  | 30                     |
| 087.7  | cm Ear Height (to base of   | top ear node)   | 11.3   | 30                                  | 0 7 6.8                   | 14.0  | 30                     |
| 1 3. 5 c   | m Length of Top Ear Inter   | node  | 0.9  | 30                                  | 0 1 4.4                   | 1.8   | 30                     |
|  | Average Number of Tillers   |   |  |                                     |                           |   |                        |
| 1.2 A  | verage Number of Ears p   | er Stalk  | 0.3  | 30                                  | 0 0 1.0                   | 0.0   | 30                     |
| 2 A  | Anthocyanin of Brace Roo  | ts: 1=Absent 2=Faint 3=Mod  | derate 4=Dark  |                                     | 4                         |   |                        |
| Application Variety  | Data  |   | Page 1   |                                     | Standard Ir               | nbred Data  |                        |
|  |   |   | -  |                                     |                           | \\  |                        |

| Application Variety Data   | Page 2   | **                | Standard Inbre  | ud Data            | <del></del> |
|--|--|-------------------|-----------------|--------------------|-------------|
| 5. LEAF:   | Standard Deviation   | Sample Size       | Mean            | Standard Deviation | Sample Size |
| 0 8 . 2 cm Width of Ear Node Leaf  | 0.8  | 30                | 0 0 9.0         | 0.7                | 30          |
| 6 5. 0 cm Length of Ear Node Leaf  | 4.8  | 30                | 0 6 2.4         | 6.4                | 30          |
| 5 . 4 Number of leaves above top ear   | 0.5  | 30                | 5.6             | 0.4                | 15          |
| 2 9. 8 degrees Leaf Angle (measure from 2nd leaf above ear at anthesis to            | 6.8  | 30                | 3 5.8           | 7.8                | 30          |
| 0 3 Leaf Color (Munsell code 5 GY 3/4)   | • •  |                   | 0 2 (Munsell o  | code 5 GY 5/10)    |             |
| 2 Leaf Sheath Pubescence (Rate on scale from 1st                                     | none to 9=like peach fuzz)   |                   | 2               | ,                  |             |
| 4 Marginal Waves (Rate on scale from 1=none to                                       | •  |                   | 5               |                    |             |
| 6 Longitudinal Creases (Rate on scale from 1=nor                                     |  |                   | 8               |                    |             |
| 6. TASSEL:   | Standard Deviation   | Sample Size       | Mean            | Standard Deviation | Sample Size |
| 1 0. 2 Number of Primary Lateral Branches  | 1.3  | 30                | 7. 1            | 1.1                | 30          |
| 1 3. 0 Branch Angle from Central Spike   | 4.7  | 30                | 3 4.6           | 5.2                | 30          |
| 3 6. 6 cm Tassel Length (from top leaf collar to tassel tip)                         | 2.3  | 30                | 4 7. 4          | 4.9                | 30          |
| 5.2 Pollen Shed (Rate on scale from 0=male sterile to                                | 9=heavy shed)  |                   | 4.3             |                    |             |
| 0 7 Anther Color (Munsell code 2.5 Y 8/10)   |  |                   | 0 5 (Munsell o  | ode 2.5 GY 8/6)    |             |
| 0 2 Glume Color (Munsell code 5 GY 4/8)  |  |                   | 0 2 (Munsell o  | ode 5 GY 4/8)      |             |
| 1 Bar Glumes (Glume Bands): 1=Absent 2=Present                                       |  |                   | 1               |                    |             |
| 7a. EAR (Unhusked Data):   | The sure of the su | ····              |                 |                    |             |
| 0 5 Silk Color (3 days after emergence) (Munsell code 2.5                            | GY 8/6)  |                   | 0 5 (Munsell o  | ode 2.5 GY 8/6)    |             |
| 0 2 Fresh Husk Color (25 days after 50% silking) (Munseli                            | code 5 GY 4/8)   |                   | 0 2 (Munsell o  | ode 5 GY 4/8)      |             |
| 2 1 Dry Husk Color (65 days after 50% Silking) (Munsell co                           | ode 2.5 Y 8/4)   |                   | 2 1 (Munsell o  | ode 2.5 Y 8/4)     |             |
| 1 Position of Ear at Dry Husk Stage: 1=Upright 2=Horizo                              | ntal 3=Pendent   |                   | 1               |                    |             |
| 7 Husk Tightness (Rate on scale from 1=very loose to 9=                              | very tight)  |                   | 8               |                    |             |
| 2 Husk Extension (at harvest): 1=Short (ears exposed) 2<br>tip) 4=Very Long (>10 cm) | =Medium (<8 cm) 3=Long (8  | -10 cm beyond ear | 3               |                    |             |
| 7b. EAR (Husked Ear Data):   | Standard Deviation   | Sample Size       | Mean            | Standard Deviation | Sample Size |
| 1 5. 8 cm Ear Length   | 0.6  | 30                | 1 8.5           | 0.7                | 30          |
| 3 9. 3 mm Ear Diameter at mid-point  | 1.3  | 30                | 3 8.0           | 1.6                | 30          |
| 9 8.7 gm Ear Weight  | 9.7  | 30                | 1 0 4.8         | 18.0               | 30          |
| 1 6 .8 Number of Kernel Rows   | 0.9  | 30                | 1 2.0           | 0.7                | 15          |
| 2 Kernel Rows: 1=Indistinct 2=Distinct   |  |                   | 2               |                    |             |
| 1 Row Alignment: 1=Straight 2=Slightly Curved 3=S                                    | piral  |                   | 1               |                    |             |
| 0 6.9 cm Shank Length  | 2.1  | 30                | 0 9.8           | 1.9                | 15          |
| 2 Ear Taper: 1=Slight 2=Average 3=Extreme  | 7'11-1   |                   | 2               |                    |             |
| Application Variety Data   |  |                   | Standard Inbred | l Data             |             |
| Note: Use chart on first page to choose color codes for color traits.                |  |                   |                 |                    |             |

| 8. KERNEL (Dried): Standard Deviation Sample Size  1 0 .6 mm Kernel Length 0.5 30 1 1 .4 0.4 15  8 .9 mm Kernel Width 0.3 30 0 9.0 0.5 15  5 .1 mm Kernel Thickness 0.3 30 0 4.9 0.3 15  5 .2.1 % Round Kernels (Shape Grade) 1 Aleurone Color Patern: 1=Homozygous 2=Segregating (describe) 1 9 Aleurone Color (Munsell code Lighter than 5 Y 9/1) 0 7 Hard Endosperm Color (Munsell code 2.5 Y 8/10) 3 Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (sh2) 3=Normal Starch 5=Waxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se) 9 END : 2 8 .6 gm Weight per 100 Kernels (unsized sample) 3.6 1200 seeds 9. COB: Standard Deviation Sample Size 2 0 .0 mm Cob Diameter at mid-point 0.7 30 2 2 .1 0.8 15  1 1 Cob Color (Munsell code 5 R 8/6)  10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic): A Leaf Blights, Wilts, and Local Infection Diseases 7 Anthracnose Leaf Blight (Collectrichum graminicola) 7 Common Rust (Puccinia sorgh) Common Smut (Ustilago maydis) 8 Eyespot (Kabatella zeae) 8 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 9 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 9 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 9 Goss's Wilt (Salvabella zeae) 10 Goss's Wilt (Salvabella zeae)   |
|--|
| 8.9 mm Kernel Width 0.3 30 0 9.0 0.5 15 5.1 mm Kernel Thickness 0.3 30 0 4.9 0.3 15 5.1 mm Kernel Thickness 0.3 30 0 4.9 0.3 15 5.2.1 % Round Kernels (Shape Grade) 5.6 500g 31.7 3.6 500g 1 Aleurone Color Pattern: 1=Homozygous 2=Segregating (describe) 1 1 9 Aleurone Color (Munsell code Lighter than 5 Y 9/1) 1 1 9 (Munsell code Lighter Than 2.5 Y 9/2) 0 7 Hard Endosperm Color (Munsell code 2.5 Y 8/10) 0 7 (Munsell code Lighter Than 2.5 Y 9/2) 0 7 (Munsell code 2.5 Y 8/10) 0 7 (Munsel |
| 5.1 mm Kernel Thickness 0.3 30 0 4.9 0.3 15 52.1 % Round Kernels (Shape Grade) 5.6 500g 3 1.7 3.6 500g  1 Aleurone Color Pattern: 1=Homozygous 2=Segregating (describe) 1 1 9 Aleurone Color (Munsell code Lighter than 5 Y 9/1) 1 9 (Munsell code Lighter Than 2.5 Y 9/2) 0 7 (Munsell code Lighter Than 2.5 Y 9/2) 0 7 (Munsell code Lighter Than 2.5 Y 9/2) 0 7 (Munsell code 2.5 Y 8/10) 3 Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (sh2) 3=Normal Starch 5=Waxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se) 9=High Oil 10=Other 2 8.6 gm Weight per 100 Kernels (unsized sample) 3.6 1200 seeds 2 9.7 8.7 1200 seeds 9. COB: Standard Deviation Sample Size Mean Standard Deviation Sample Size 2 0.0 mm Cob Diameter at mid-point 0.7 30 2 2.1 0.8 15 1 Cob Color (Munsell code 5 R 6/6) 1 4 (Munsell code 5 R 3/8) 10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic): A Leaf Blights, Wilts, and Local Infection Diseases 7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Rust (Puccinia sorghi) Common Smut (Visitiago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Claubacter michiganense spp. nebraskense) 5 Grav Leaf Soot (Vercospora zeae-maydis) 6 Goss's Wilt (Claubacter michiganense spp. nebraskense) 5 Grav Leaf Soot (Vercospora zeae-maydis)   |
| 5 2.1 % Round Kernels (Shape Grade) 5 .6 500g 1 Aleurone Color Pattern: 1=Homozygous 2=Segregating (describe) 1 9 Aleurone Color (Munsell code Lighter than 5 Y 9/1) 1 9 Aleurone Color (Munsell code Lighter than 5 Y 9/1) 1 1 9 (Munsell code Lighter Than 2.5 Y 9/2) 0 7 Hard Endosperm Color (Munsell code 2.5 Y 8/10) 3 Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (sh2) 3=Normal Starch 4=High Amylose Starch 5=Waxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se) 9=High Oil 10=Other. 2 8 .6 gm Weight per 100 Kernels (unsized sample) 3 .6 1200 seeds 2 9 .7 8 .7 1200 seeds 9 .COB: Standard Deviation Sample Size Mean Standard Deviation Sample Size 2 0 .0 mm Cob Diameter at mid-point 0.7 30 2 2 .1 0.8 15 1 1 Cob Color (Munsell code 5 R 6/6) 10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic): A. Leaf Blights, Wilts, and Local Infection Diseases 7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Smut (Puccinia sorgh) Common Smut (Puccinia sorgh) Common Smut (Vectinia sorgh) Common Smut (Vectinia sorgh) Eyespot (Kabatiella zezee) 6 Goss's Wilt (Clavibacter michiganens spp. nebraskense) 5 Gray Leaf Spot (Cercospora zeae-maydis)   |
| 1 Aleurone Color Pattern: 1=Homozygous 2=Segregating (describe)  1 9 Aleurone Color (Munsell code Lighter than 5 Y 9/1)  0 7 Hard Endosperm Color (Munsell code 2.5 Y 8/10)  3 Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (sh2) 3=Normal Starch 5=Vaxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se)  10=Other  2 8 .6 gm Weight per 100 Kernels (unsized sample)  3 .6 1200 seeds  9 .COB: Standard Deviation Sample Size  2 0 .0 mm Cob Diameter at mid-point  0 .7 30  2 2 .1 0.8 15  1 1 Cob Color (Munsell code 5 R 8/6)  10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic):  A Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Collectrichum graminicola) 7 Common Rust (Puccinia sorgh) Common Rust (Puccinia sorgh) Common Rust (Vabilago maydis) 8 Eyespot (Kabatlella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Soot (Cercospora zeae-maydis)  |
| 1 9 Aleurone Color (Munsell code Lighter than 5 Y 9/1)  0 7 Hard Endosperm Color (Munsell code 2.5 Y 8/10)  3 Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (sh2) 3=Normal Starch 5=Waxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se)  2 8 .6 gm Weight per 100 Kernels (unsized sample)  3 .6 1200 seeds  9 .COB:  Standard Deviation Sample Size  2 0 .0 mm Cob Diameter at mid-point  1 1 Cob Color (Munsell code 5 R 6/6)  1 2 .1 0.8 15  1 1 (Munsell code 2.5 Y 8/10)  0 3  2 2 .1 0.8 15  1 4 (Munsell code 2.5 Y 8/10)  1 5 Anthracnose Leaf Blight (Collectrichum graminicola)  7 Common Rust (Puccinia sorghi)  Common Rust (Puccinia sorghi)  Common Rust (Puccinia sorghi)  Eyespot (Kabatiella zeae)  6 Goss's Wilt (Cisvibacter michiganense spp. nebraskense)  5 Gray Leaf Sot (Cercospora zeae-maydis)   |
| 0 7 Hard Endosperm Color (Munsell code 2.5 Y 8/10)  3 Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (sh2) 3=Normal Starch 5=Waxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se) 9=High Oil  2 8 .6 gm Weight per 100 Kernels (unsized sample)  3 .6 1200 seeds  9 .COB: Standard Deviation Sample Size  2 0 .0 mm Cob Diameter at mid-point 0.7 30 2 2 .1 0.8 15  1 1 Cob Color (Munsell code 5 R 6/6)  1 2 (Munsell code 5 R 3/8)  10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic):  A. Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Rust (Puccinia sorghi) Common Smut (Ustilago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Soot (Cerospora zeae-maydis) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 7 Cormon Rust (Sorgh) 6 Goss's Wilt (Sarab Leaf Soot (Cerospora zeae-maydis)   |
| 3 Endosperm Type: 1=Sweet (su1) 2=Extra Sweet (sh2) 3=Normal Starch 5=Waxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se) 9=High Oil  2 8 .6 gm Weight per 100 Kernels (unsized sample) 3.6 1200 seeds  9. COB: Standard Deviation Sample Size Mean Standard Deviation Sample Size 2 0 .0 mm Cob Diameter at mid-point 0.7 30 2 2 .1 0.8 15  1 1 Cob Color (Munsell code 5 R 6/6) 1 4 (Munsell code 5 R 3/8)  10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic):  A. Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Rust (Puccinia sorghi) Common Smut (Ustilago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Spot (Cerospora zeae-maydis)  |
| 5=Waxy Starch 6=High Protein 7=High Lysine 8=Super Sweet (se) 9=High Oil  2 8 .6 gm Weight per 100 Kernels (unsized sample) 3.6 1200 seeds  9. COB: Standard Deviation Sample Size Mean Standard Deviation Sample Size  2 0 .0 mm Cob Diameter at mid-point 0.7 30 2 2.1 0.8 15  1 1 Cob Color (Munsell code 5 R 6/6) 14 (Munsell code 5 R 3/8)  10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic):  A. Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Smut (Puccinia sorghi) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Spot (Cercospora zeae-maydis)  |
| 9. COB:  Standard Deviation Sample Size  9. COB:  Standard Deviation Sample Size  Mean Standard Deviation Sample Size  2 0 .0 mm Cob Diameter at mid-point 0.7 30 2 2 .1 0.8 15  1 1 Cob Color (Munsell code 5 R 6/6)  1 4 (Munsell code 5 R 3/8)  10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic):  A. Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Rust (Puccinia sorghi) Common Smut (Ustilago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Spot (Cercospora zeae-maydis)  |
| 2 0 .0 mm Cob Diameter at mid-point 0.7 30 2 2 .1 0.8 15  1 1 Cob Color (Munsell code 5 R 6/6) 1 4 (Munsell code 5 R 3/8)  10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic):  A. Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Colletatrichum graminicola) 7 Common Rust (Puccinia sarghi) Common Smut (Ustilago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Spot (Cercospora zeae-maydis) 2 2.1 0.8 15  1 4 (Munsell code 5 R 3/8)  7 Anthracnose Leaf Blight Common Rust Common Smut 7 Eyespot 8 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 9 Gray Leaf Spot (Cercospora zeae-maydis)  |
| 1 1 Cob Color (Munsell code 5 R 6/6)  1 2 (Munsell code 5 R 3/8)  10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic):  A. Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Rust (Puccinia sorghi) Common Smut (Ustilago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Spot (Cercospora zeae-maydis)  1 4 (Munsell code 5 R 3/8)  1 A (Munsell code 5 R 3/8)   |
| 10. DISEASE RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested; leave Race or Strain Options blank if polygenic):  A. Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Rust (Puccinia sorghi) Common Smut (Ustilago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Spot (Cercospora zeae-maydis)  7 Anthracnose Leaf Blight Common Rust Common Smut 7 Eyespot 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 7 Anthracnose Leaf Blight Common Rust Common Smut 7 Eyespot 8 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 9 Gray Leaf Spot (Cercospora zeae-maydis)  |
| Race or Strain Options blank if polygenic):  A. Leaf Blights, Wilts, and Local Infection Diseases  7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Rust (Puccinia sorghi) Common Smut (Ustilago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Spot (Cercospora zeae-maydis)  7 Anthracnose Leaf Blight Common Rust Common Rust Common Smut 7 Eyespot 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 6 Goss's Wilt 7 Eyespot 7 Anthracnose Leaf Blight 6 Common Rust 7 Common Smut 7 Eyespot 8 Goss's Wilt 9 Gray Leaf Spot (Cercospora zeae-maydis)   |
| 7 Anthracnose Leaf Blight (Colletotrichum graminicola) 7 Common Rust (Puccinia sorghi) Common Smut (Ustilago maydis) 8 Eyespot (Kabatiella zeae) 6 Goss's Wilt (Clavibacter michiganense spp. nebraskense) 5 Gray Leaf Spot (Cercospora zeae-maydis) 7 Anthracnose Leaf Blight Common Rust Common Smut 7 Eyespot 6 Goss's Wilt 6 Goss's Wilt 7 Eyespot 9 Gray Leaf Spot (Cercospora zeae-maydis)   |
| 8 Helminthosporium Leaf Spot ( <i>Bipolaris zeicola</i> )  |
| Corn Lethal Necrosis (MCMV and MDMV) Head Smut (Sphacelotheca relliana) Maize Chlorotic Dwarf Virus (MCDV) Maize Chlorotic Mottle Virus (MCMV) Maize Dwarf Mosaic Virus (MDMV) Sorghum Downy Mildew of Corn (Peronosclerospora sorghi) Other (Specify)  C. Stalk Rots  Anthracnose Stalk Rot (Colletotrichum graminicola) Diplodia Stalk Rot (Stenocarpella maydis)  Anthracnose Stalk Rot  |
| Fusarium Stalk Rot (Fusarium moniliforme)  Gibberella Stalk Rot (Gibberella zeae)  Other (Specify)  D. Ear and Kernel Rots  Diplodia Stalk Rot Fusarium Stalk Rot Gibberella Stalk Rot Other (Specify)  Other (Specify)  |
| Aspergillus Ear and Kernel Rot (Aspergillus flavus)Diplodia Ear Rot (Stenocarpella maydis)Fusarium Ear and Kernel Rot (Fusarium moniliforme)Gibberella Ear Rot (Gibberella zeae)Other (Specify)Other (Specify)Other (Specify)  |
| Application Variety Data  Standard Inbred Data  Note: Use chart on first page to choose color codes for color traits.  |

| Application Variety Data Page 4   | Standard Inbred Data                                     |
|---|--|
| 11. INSECT RESISTANCE (Rate from 1 (most susceptible) to 9 (most resistant); leave blank if not tested): Standard Deviation Sample Size   | Standard Deviation Sample Size                           |
| Banks Grass Mite (Oligonychus pratensis)  | Banks Grass Mite   |
| Corn Earworm (Helicoverpa zea) Leaf-Feeding Silk Feeding: mg larvał wt Ear Damage   | Corn Earworm Leaf Feeding Ear Damage                     |
| Corn Leaf Aphid (Rhopalosiphum maidis) Corn Sap Beetle (Carpophilus dimidiatus)   | Corn Leaf Aphid Corn Sap Beetle                          |
| European Corn Borer (Ostrinia nubilalis)  1st Generation (Typically Whorl Leaf Feeding) 2nd Generation (Typically Leaf Sheath-Collar Feeding) Stalk Tunneling: cm tunneled/plant  | European Corn Borer 1st Generation 2nd Generation        |
| Fall Armyworm (Spodoptera frugiperda) Leaf-Feeding Silk-Feeding:mg larval wt.   | Fall Armyworm Leaf Feeding                               |
| Maize Weevil (Sitophilus zeamaize)     Northern Rootworm (Diabrotica barberi)     Southern Rootworm (Diabrotica undecimpunctata)  | Maize Weevil Northern Rootworm Southern Rootworm         |
| Southwestern Corn Borer ( <i>Diatraea grandiosella</i> ) Leaf Feeding Stalk Tunneling:cm tunneled/plant   | Southwestern Corn Borer Leaf Feeding                     |
| Two-spotted Spider Mite (Tetranychus urticae) Western Rootworm (Diabrotica virgifera virgifera) Other (Specify)   | Two-spotted Spider Mite Western Rootworm Other (Specify) |
| 12. AGRONOMIC TRAITS:   | ****   |
| 6 Stay Green (at 65 days after anthesis) (Rate on a scale from 1=worst to 9=excellent.)   | 2 Stay Green   |
| 0 0 .0 % Dropped Ears (at 65 days after anthesis)   | 0 0 .0 % Dropped ears                                    |
| 0 0 .0 % Pre-anthesis Brittle Snapping  | 0 0 .0 % Pre-anthesis Brittle Snapping                   |
| 0 0. 0 % Pre-anthesis Root Lodging  | 0 0 .0 % Pre-anthesis Root Lodging                       |
| 0 0. 0 % Post-anthesis Root Lodging (at 65 days after anthesis)   | 0 0 .0 % Post-anthesis Root Lodging                      |
| Kg/ha Yield of Inbred Per Se (at 12-13% grain moisture)   | Yield  |
| 13. MOLECULAR MARKERS: (0=data unavailable; 1=data available but not supplied; 2=data supplied)   |  |
| 1 Isozymes 0 RFLP's 0 RAPD'sOther (Specify)   |  |
| REFERENCES:   |  |
| Butler, D.R. 1954. A System for the Classification of Corn Inbred Lines. PhD Thesis, Ohio State University. Emerson, R.A., G.W. Beadle, and A.C. Fraser. 1935. A Summary of Linkage Studies in Maize. Cornell A.E.S., Mem. 180 Farr, D.F., G.F. Bills, G.P. Chamuris, A.Y. Rossman. 1989. Fungi on Plant and Plant Products in the United States. The Allighett, G.E. (Ed.) 1970. Corn: Culture, Processing, Products. Avi Publishing Company, Westport, C.T. Jugenheimer, R.W. 1976. Corn: Improvement, Seed Production, and Uses. John Wiley & Sons, New York. McGee, D.C. 1988. Maize Diseases. APS Press, St. Paul, MN. 150 pp. Munsell Color Chart for Plant Tissues. Macbeth. P.O. Box 230. Newburgh, N.Y. 12551-0230 The Mutants of Maize. 1968. Crop Science Society of America. Madison, WI. Shurtleff, M.C. 1980. Compendium of Corn Diseases. APS Press, St. Paul, MN. 105 pp. | American Phytopathological Society, St. Paul, MN.        |
| Stringfield, G.F., and J.W. Dudley (Editors). 1988. Corn and Corn Improvement, Third Edition. Agronomy Monograph 18. A Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S., Bul. 831. 1959. U.S. Department of Agriculture. 1936, 1937. Yearbook.   | SA, CSSA, SSSA, Madison, WI.                             |
| COMMENTS (e.g. state how heat units were calculated, standard inbred seed source, and/or where data was collected. C  | Continue in Exhibit D):                                  |
| Heat Unit Calculation: GDU = <u>Daily Max Temp (&lt;=86°F) + Daily Min Temp (&gt;=50°F)</u> 2   | - 50°F   |
| supplemental data obtained from 2005 seed inventory and production parent test.   |  |

| EXHIBIT E<br>STATEMENT OF THE BASIS OF OWNERSHIP                              | certificate is to be issued (7 U.S.C. 2 confidential until the certificate is issued to the certificate is included to the certificate is | 421). The information is held |  |
|---|---|-------------------------------|--|
| 1. NAME OF APPLICANT(S)   | 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER   | 3. VARIETY NAME               |  |
| Monsanto Technology L.L.C.  |   | 1062696                       |  |
| 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) | 5. TELEPHONE (Include area code)  | 6. FAX (Include area code)    |  |
| 800 N. Lindbergh Blvd.  | (815) 758-9281  | (815) 758-3117                |  |
| Creve Couer, MO 63167   | 7. PVPO NUMBER  |                               |  |
| U.S.A.  |   | 200600122                     |  |
| 8. Does the applicant own all rights to the variety? Mark an "X" in the       | e appropriate block. If no, please expla  | in. X YES NO                  |  |

Application is required in order to determine if a plant variety protection

|   | <b>.</b>                     |                   |   | •      |    |
|---|------------------------------|-------------------|---|--------|----|
| 9. Is the applicant (individual or company) a t | J.S. national or a U.        | S. based comp     | pany? If no, give name of country.                                  | X YES  | NO |
| 10. Is the applicant the original owner?        | X YES                        | NO                | If no, please answer one of the foll                                | owing: |    |
| a. If the original rights to variety were own   | ned by individual(s),<br>YES | is (are) the ori  | ginal owner(s) a U.S. National(s)? If no, give name of country      |        |    |
| b. If the original rights to variety were own   | ned by a company(ie          | es), is (are) the | original owner(s) a U.S. based compa<br>If no, give name of country | ny?    |    |

11. Additional explanation on ownership (Trace ownership from original breeder to current owner. Use the reverse for extra space if needed):

Corn Variety 1062696 was originated and developed by a breeder employed by Monsanto Technology L.C. By agreement between Monsanto Technology L.C. and the breeder, all rights to any invention, discovery or development are assigned to Monsanto Technology L.L.C. くして No rights to such invention, discovery or development are retained by the breeder.

#### PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

- 1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- 2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
- 3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

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> U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

**EXHIBIT F** 

| NAME OF OWNER (S)                | DECLARATION REGARDING DEPOSIT   |  |
|----------------------------------|---|--|
| MANUE OF OWNER (S)               | ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) | TEMPORARY OR EXPERIMENTAL DESIGNATION  |
| Monsanto Technology LLC          | 8350 Minnegan Road<br>Waterman, IL 60556                                  |  |
|                                  | U.S.A.  | VARIETY NAME   |
| <u> </u>                         | -   | 1062696  |
| NAME OF OWNER REPRESENTATIVE (S) | ADDRESS (Street and No. or RD No., City, State, and Zip Code and Country) | FOR OFFICIAL USE ONLY THE TENENT OF MENTAL M |
| Timothy R. Kain                  |   | 。<br>高級軍務中的基礎的<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學院<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個學<br>第四個<br>第四個學<br>第四個學<br>第四個<br>第四個<br>第四個<br>第四個<br>第四<br>第四個<br>第四<br>第四<br>第四<br>第四<br>第四<br>第一<br>第一<br>第一<br>第一<br>第一<br>第一<br>第一<br>第一<br>第一<br>第一  |
| •                                | 8350 Minnegan Road  | PVPO NUMBER  |
|                                  | Waterman, IL 60556  | 1  |
|                                  | U.S.A.  | 200600122  |

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

28 **FE**B 2008